

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference BPMONS008CWO	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/BE2004/000116	International filing date (day/month/year) 11/08/2004	(Earliest) Priority Date (day/month/year) 11/08/2003
Applicant FACULTE POLYTECHNIQUE DE MONS		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 7

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/BE2004/000116

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G10L11/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G10L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	B.BOZKURT AND T.DUTOIT: "Mixed-Phase Speech Modeling and Formant Estimation, Using Differential Phase Spectrums" PROC. ISCA ITRW VOQUAL 2003, 'Online! 27 August 2003 (2003-08-27), pages 21-24, XP002312214 GENEVA, SWITZERLAND Retrieved from the Internet: URL:http://tcts.fpms.ac.be/publications/papers/2003/voqual03_bbttd.pdf> 'retrieved on 2004-12-02! the whole document ----- -/--	1-11



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *8* document member of the same patent family

Date of the actual completion of the international search

30 December 2004

Date of mailing of the international search report

14/02/2005

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/BE2004/000116

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,A	B.DOVAL, C.D'ALESSANDRO, NATHALIE HENRICH: "The Voice Source as a causal/anticausal linear filter" PROC. ISCA ITRW VOQUAL 2003, 'Online! 27 August 2003 (2003-08-27), pages 15-20, XP002312215 GENEVA, SWITZERLAND Retrieved from the Internet: URL: http://www.isca-speech.org/archive/archive_papers/voqual03/voq3_015.pdf 'retrieved on 2004-12-02! the whole document	1-11
Y	----- DATABASE INSPEC 'Online! THE INSTITUTION OF ELECTRICAL ENGINEERS, STEVENAGE, GB; 1990, JACKSON L B: "Noncausal ARMA modeling of voiced speech" XP002312218 Database accession no. 3517863 abstract paragraph '00II! & JACKSON LELAND B: "Noncausal ARMA modeling of voiced speech" IEEE TRANSACTIONS ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING, vol. 37, no. 10, October 1989 (1989-10), pages 1606-1608, IEEE Transactions on Acoustics, Speech and Signal Processing USA ISSN: 0096-3518	1-9,11
Y	----- DATABASE INSPEC 'Online! THE INSTITUTION OF ELECTRICAL ENGINEERS, STEVENAGE, GB; 1985, REDDY N S ET AL: "High-resolution formant extraction from linear-prediction phase spectra" XP002312216 Database accession no. 2427409 abstract -/--	1-9,11

INTERNATIONAL SEARCH REPORT

International Application No

PCT/BE2004/000116

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>& N. SRIDHAR REDDY AND M.N.S. SWAMY: "High-Resolution Formant Extraction from Linear-Prediction Phase Spectra" IEEE TRANSACTIONS ON ACOUSTICS, SPEECH AND SIGNAL PROCESSING, vol. ASSP-32, no. 6, 6 December 1984 (1984-12-06), pages 1136-1144, USA ISSN: 0096-3518 page 1136, right-hand column, line 33 - line 43 page 1138, left-hand column, line 21 - right-hand column, line 8 page 1142, right-hand column, line 18 - line 25</p> <p>-----</p> <p>DATABASE INSPEC 'Online! THE INSTITUTION OF ELECTRICAL ENGINEERS, STEVENAGE, GB; 1989, DUNCAN G ET AL: "A nonparametric method of formant estimation using group delay spectra" XP002312217 Database accession no. 3472036 abstract page 572, right-hand column, line 1 - line 12 page 573, left-hand column, line 48 - right-hand column, line 2 paragraph '0004! & ICASSP-89: 1989 INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH AND SIGNAL PROCESSING (IEEE CAT. NO.89CH2673-2) 23-26 MAY 1989 GLASGOW, UK, 23 May 1989 (1989-05-23), - 26 May 1989 (1989-05-26) pages 572-575 vol.1, ICASSP-89: 1989 International Conference on Acoustics, Speech and Signal Processing (IEEE Cat. No.89CH2673-2) IEEE New York, NY, USA</p> <p>-----</p>	1,11
	<p>DATABASE INSPEC 'Online! THE INSTITUTION OF ELECTRICAL ENGINEERS, STEVENAGE, GB; 1997, DOVAL B ET AL: "Spectral correlates of glottal waveform models: an analytic study" XP002312219 Database accession no. 5730449 cited in the application abstract</p> <p>-----</p> <p>-/--</p>	1

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	<p>& B.DOVAL AND C.D'ALESSANDRO: "Spectral correlates of glottal waveform models: an analytic study" 1997 IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING 21-24 APRIL 1997 MUNICH, GERMANY, vol. 2, 21 April 1997 (1997-04-21), pages 1295-1298 vol., 1997 IEEE International Conference on Acoustics, Speech, and Signal Processing (Cat. No.97CB36052) IEEE Comput. Soc. Press Los Alamitos, CA, USA ISBN: 0-8186-7919-0 -----</p>	